APPENDIX A

DEFINITIONS

Note: Unless stated otherwise, these terms of reference are defined by the Open Systems Joint Task Force (OSJTF).

Architecture
The organizational structure of a system or component, their relationships, and the principles and guidelines governing their design and evolution over time. *(IEEE 610.12)*

Commercial Item
The CI definition can be found in *Federal Acquisition Regulation (FAR) Subchapter A General, Part 2, 2.101 Definitions at http://www.arnet.gov/far/*

Component
A product that is not subject to decomposition from the perspective of a specific application. (ISO 10303-1)

Closed Interfaces
Privately controlled system/subsystem boundary descriptions that are not disclosed to the public or are unique to a single supplier.

De facto standard
A standard that is widely accepted and used but that lacks formal approval by a recognized standards organization. *(FED-STD-1037C)*

Design Architecture
An arrangement of design elements that provides the design solution for a product or life cycle process intended to satisfy the functional architecture and the requirements baseline. *(IEEE 1220)*

Domain
A grouping of related items within a certain area of interest.

End Product
The portion of a system that performs the operational functions and is delivered to an acquirer. *(IEEE 1220)*

Evolutionary Acquisition
Evolutionary acquisition is the preferred DoD strategy for rapid acquisition of mature technology for the user. An evolutionary approach delivers capability in increments, recognizing, up front, the need for future capability improvements. The objective is to balance needs and available capability with resources, and to put capability into the hands of the user quickly. (DoDI 5000.2 approved May 12. 2003)

Functional Architecture
An arrangement of functions and their sub-functions and interfaces (internal and external) that defines the execution sequencing, conditions for control or data flow, and the performance requirements to satisfy the requirements baseline. *(IEEE 1220)*

Integrated Architecture
An architecture that defines capabilities and related characteristics for a mission area, provides the means to evaluate alternative solutions in response to user needs, and establishes the context for systems acquisition and systems engineering processes by using a top-down and collaborative development approach. Similar to any other architecture, an integrated architecture defines structure and relationships among components, and provides views that represent stakeholder concerns.

Interface
The functional and physical characteristics required to exist at a common boundary or connection between systems or items. *(DoD 4120.214-M)*

Interface Standard
A standard that specifies the physical, functional, and operational relationships between various elements (hardware and software), to permit interchangeability, interconnection, compatibility and/or communications.

Interoperability
The ability of systems, units, or forces to provide data, information, materiel, and services to and accept the same from other systems, units, or forces, and to use the data, information, materiel, and services so exchanged to enable them to operate effectively together. *(DoDD 5000.1)*

Intraoperability
The ability to (1) interchange and use information, services and/or physical items among components within a system (platform, program or domain) and (2) support the common use of components across various product lines.

Joint Integrated Architecture
An integrated architecture that establishes the basis for rapidly acquiring affordable and evolving joint warfighting capabilities through collaborative planning, analysis, assessment, and decision making.

Key Interface
An interface for which the preferred implementation uses an open standard to design the system for affordable change, ease of integration, interoperability, commonality, reuse and other essential considerations such as criticality of function.

Modular Design
Characterized by the following:

- Functionally partitioned into discrete scalable, reusable modules consisting of isolated, self-contained functional elements
- Rigorous use of disciplined definition of modular interfaces, to include object oriented descriptions of module functionality
- Designed for ease of change to achieve technology transparency and, to the extent possible, makes use of commonly used industry standards for key interfaces

Modular Open Systems Approach
An integrated business and technical strategy that employs a modular design and, where appropriate, defines key interfaces using widely supported, consensus-based standards that are published and maintained by a recognized industry standards organization.

Module
An independently operable unit that is a part of the total structure. (Merriam-Webster)

Open Standards
Standards that are widely used, consensus based, published and maintained by recognized industry standards organizations.

Open Architecture
An architecture that employs open standards for key interfaces within a system.

Proprietary Standard
A standard that is exclusively owned by an individual or organization, the use of which generally would require a license and/or fee.

Reference Model
A structure which allows the modules and interfaces of a system to be described in a consistent manner.

Spiral Development
A process for implementing evolutionary acquisition within which the end-state requirements are not known at program initiation but are refined through continuous user feedback, demonstration, and risk management so that each increment provides the user the best possible capability.

Stakeholder
An enterprise, organization, or individual having an interest or a stake in the outcome of the engineering of a system. *(EIA-632, Annex A)*

Standard
A document that establishes engineering and technical requirements for products, processes, procedures, practices, and methods that have been decreed by authority or adopted by consensus. *(EIA-632, Annex A)*

Subsystem
A grouping of items that perform a set of functions within a particular end product. *(EIA-632, Annex A)*

System
A combination of two or more interrelated pieces of equipment (or sets) arranged in a functional package to perform an operational function or to satisfy a requirement. *(Defense Acquisition Glossary of Terms, Jan 2001)*

System Architecture
The composite of the design architectures for products and their life cycle processes. *(IEEE 1220-1998)*

Weapon System
An item or set of items that can be used directly by warfighters to carry out combat or combat support missions to include tactical communication systems. *(DoDI 5000.2)*